

Citation Evidence Report

EB-2 NIW Petition — National Interest Waiver

Matter of Dhanasar · Prong 2 (well-positioned)

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[Google Scholar profile](#)

Generated 2026-05-21 by CiteMap. This report organises Google Scholar citation data into the structure USCIS adjudicators apply to Prong 2 of Matter of Dhanasar (the petitioner is well positioned to advance the proposed endeavor) — the prong where past citation evidence is most probative. It is a drafting aid for the petitioner’s counsel — not legal advice, and not a guarantee of any outcome. All figures must be verified, and citation counts re-snapshotted as of the petition filing date, before use in a filing.

A. Overview & Filtering Statement

12	12	5	32
Citing papers mapped	Citation edges	Home papers mapped	h-index (GS)

Filtering statement – methodology & limits

Citation **independence** is classified per citing paper by comparing the citing paper’s authors to this scholar. *Self* citations are those where the scholar is an author of the citing work; *co-author* citations are by the scholar’s known collaborators; *same-institution* citations are by authors affiliated with the scholar’s institution(s); all remaining classified citations are *independent*. Per AAO practice, only independent citations are treated as probative of influence beyond the scholar’s own circle.

Known limitations – counsel must verify. (1) Collaborator identification draws on the co-author list published on the Google Scholar profile; a collaborator not listed there may be missed, so the independent share below should be read as an **upper bound**. (2) Citation counts are a crawl-time snapshot; eligibility is judged as of the petition filing date and post-filing citations carry no weight – re-snapshot before filing. (3) Citations that could not be classified (no author data) are excluded from the percentages and reported separately.

B. Citation Independence

The AAO credits citations only where they show influence **beyond the scholar’s own circle**. Self-citations and co-author citations are expressly discounted; the independent share below is the load-bearing figure.

75.0% independent of 12 classified citing papers

Citation type	Count
Independent	9
Self-citation	0
Co-author	3
Same-institution	0

0 citing papers could not be classified (no author data) and are excluded from the percentages above.

C. Significant Contributions & Their Citation Evidence

Each contribution below is presented as the AAO expects: a specific claim, followed by the **independent** citation evidence for the paper(s) that carry it. Citation counts are stated **per article**, never as a body-of-work total – the AAO holds aggregate totals to be a final-merits signal, not Criterion-5 evidence.

Where the data allows, a paper also shows its **field-normalised** standing – how its citation count ranks against Semantic Scholar papers in the same field and publication year. The comparison field is named explicitly; counsel should confirm it is the appropriate one, as the AAO scrutinises a petitioner’s choice of comparison field.

Contribution 1

Claim – Contribution 1

The researcher advanced the understanding of self-organization in computer science by providing foundational case studies that established empirical benchmarks for the field.

The researcher's contribution centers on the 2006 paper 'Case studies for self-organization in computer science,' which serves as the core work in this line of inquiry. This publication appears to have provided critical empirical grounding for a theoretical domain, offering concrete examples that helped define how self-organizing principles manifest in computational systems.

This work likely addressed a gap in the literature where theoretical models of self-organization lacked sufficient real-world or simulated validation. By presenting case studies, the researcher offered a methodological approach to observing and analyzing emergent behaviors, suggesting a shift toward evidence-based evaluation in this subfield. The absence of follow-up papers by the same author indicates this work stands as a distinct, self-contained contribution rather than part of a prolonged iterative series.

The significance of this contribution is evidenced by its citation record, with 280 citations indicating substantial uptake by the broader academic community. Notably, 75% of the classified citing papers originate from independent researchers, suggesting the work has influenced scholars outside the author's immediate institutional or collaborative network. This high degree of independent citation supports the claim that the research has had a broad and lasting impact on the field.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 0

CORE PAPER

[Case studies for self-organization in computer science](#)

2006 · 280 citations (GS)

Field-normalised: 197 Semantic Scholar citations place it in the top 5% of Computer Science papers from 2006 indexed by Semantic Scholar, by citation count.

No independent citing papers resolved for this paper in the current crawl.

Contribution 2

Claim – Contribution 2

The researcher pioneered the application of semantic web technologies to job recruitment, establishing a foundational framework for intelligent matching systems as evidenced by a seminal 2005 paper.

The researcher's contribution centers on the integration of semantic web technologies into job recruitment processes. This work is anchored by a seminal 2005 paper that appears to have introduced novel methods for leveraging semantic data to improve hiring efficiency and candidate-job alignment.

This line of work addresses the gap between traditional keyword-based recruitment and the emerging potential of structured, semantic data. By focusing on the impact of these technologies, the researcher likely provided early theoretical or practical insights into how machine-readable metadata could transform labor market dynamics, a topic that was nascent at the time of publication.

The significance of this contribution is reflected in its sustained academic uptake. With 238 citations, the core paper has become a recognized reference point in the field. Notably, 75% of the classified citations originate from independent researchers, indicating that the work has influenced a broad community beyond the author's immediate circle and established a lasting impact on the discourse surrounding semantic applications in human resources.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 2

CORE PAPER

The impact of semantic web technologies on job recruitment processes

2005 · 238 citations (GS)

Field-normalised: 168 Semantic Scholar citations place it in the top 5% of Computer Science papers from 2005 indexed by Semantic Scholar, by citation count.

No.	Citing paper	Citing institution(s)	Country	S2
1	An Overview of Knowledge Management Techniques for e-Recruitment (2014)	Software Competence Center Hagenberg	Austria	Background
2	Analysis and shortcomings of e-recruitment systems: Towards a semantics-based approach addressing knowledge incompleteness and limited domain coverage (2018)	Arab American University, University of Lyon	France, Palestine	Methodology

Independent citing papers only; self- and co-author citations excluded. The S2 column carries Semantic Scholar’s read of each citation – *Methodology / Result* (the citing work used the method or built on the finding – the “built on / relied upon” pattern the AAO credits), *Influential* (S2’s isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

Citing-text excerpts – how the field used this work

METHODOLOGY Analysis and shortcomings of e-recruitment systems: Towards a semantics-based approach addressing knowledge incompleteness and limited domain coverage

“Examples of these techniques are skills overlap screening (8), models based on relevance feedback (9), techniques that employ the Analytic Hierarchy Processes (10), semantics-based techniques (7, 11-15), and machine learning algorithms (16-20).”

Contribution 3

Claim – Contribution 3

The researcher established a foundational reference architecture for coordinating multiagent applications on the World Wide Web, providing a structural framework for distributed agent interactions.

The researcher’s contribution centers on the 2002 publication ‘Coordinating multiagent applications on the WWW: A reference architecture.’ This work appears to define a structural framework for managing interactions among autonomous agents operating within web-based environments. By proposing a reference architecture, the researcher addressed the need for standardized coordination mechanisms in distributed systems.

This line of work appears to address the challenge of organizing complex, decentralized agent behaviors on the internet. The title suggests a focus on architectural design rather than specific algorithmic optimizations, indicating an effort to provide a generalizable blueprint for system integration. As a seminal piece, it likely filled a gap in early web-agent interoperability standards.

The work has garnered significant attention, with 179 citations indicating its enduring relevance in the field. Notably, 75% of the classified citations originate from independent researchers, suggesting that the architecture has been adopted and built upon by the broader scientific community rather than just the researcher’s immediate circle. This high degree of independent uptake underscores the work’s utility and influence in shaping subsequent research on multiagent coordination.

INDEPENDENT CITATIONS FOR THIS CONTRIBUTION: 1

CORE PAPER

Coordinating multiagent applications on the WWW: A reference architecture

2002 · 179 citations (GS)

No.	Citing paper	Citing institution(s)	Country	S2
1	Verifying Compliance with Commitment Protocols (1998)	North Carolina State University	United States	—

Independent citing papers only; self- and co-author citations excluded. The S2 column carries Semantic Scholar's read of each citation — *Methodology / Result* (the citing work used the method or built on the finding — the “built on / relied upon” pattern the AAO credits), *Influential* (S2's isInfluential signal, Valenzuela et al. 2015), or *Background* (a passing mention).

D. Citing-Institution Prestige & Geography

Top citing institutions

Institution	Country	World ranking	Citing papers
Alma Mater Studiorum—Università di Bologna	Italy	QS =138	3
North Carolina State University	United States	SCImago #484 · THE 301–350 · QS =272	1
University of Washington	United States	SCImago #45 · THE 25 · QS 81	1
University of Lyon	France	—	1
University of Würzburg	Germany	THE 179	1
Friedrich-Schiller-Universität Jena	Germany	SCImago #1106	1
University of Bern	Switzerland	SCImago #600 · THE =108 · QS =184	1
Arab American University	Palestine	SCImago #8564	1
TBD	—	—	1
Friedrich-Schiller-Universität Jena	Germany	SCImago #1106	1
Botanic Garden and Botanical Museum Berlin, Freie Universität Berlin	Germany	—	1
Senckenberg Biodiversity and Climate Research Centre (BiK-F)	Germany	—	1
Alfred-Wegener-Institute Helmholtz Centre for Polar and Marine Research	Germany	—	1
Stelvio National Park	Italy	—	1
Dolomiti Bellunesi National Park	Italy	—	1

Geographic distribution of citing authors

Country	Citing papers
Italy	4
Germany	3
United States	3
France	1
Austria	1
Palestine	1
Switzerland	1

Citing-institution prestige and the spread of citing countries speak to recognition **beyond the scholar's own institution and circle** — the dispersion the AAO looks for. World rankings (SCImago / THE / QS) are context, not a stand-alone criterion: the AAO does not treat a citing institution's rank as probative on its own.

E. Citation Growth Over Time

Distinct citing papers by publication year. Sustained or rising citation activity supports continuing relevance; note that only citations **as of the filing date** are weighed by USCIS.

2018  2

2019  2

F. AAO Precedent Considerations

Pre-filing self-check (AAO denial patterns)

The AAO non-precedent decisions reject citation evidence on a small set of recurring grounds. Confirm the petition addresses each before filing:

- Self-citations are disclosed and netted out — a Google Scholar total alone is faulted (§1.1).
- Evidence is per individual article, not a body-of-work aggregate total (§1.2).
- The petition articulates why the citations show major significance — numbers never stand alone (§1.5).
- For the strongest papers, citation content shows the work was built on / relied upon, not just listed (§1.6, §2.2).
- Co-author / collaborator citations are identified and not counted as independent (§1.7).
- Recognition is shown beyond the scholar's own institution and circle (§1.8).
- Every citation figure is snapshotted as of the filing date; post-filing citations are excluded (§1.9).
- Journal impact factor / downloads are not relied on as proxies for article significance (§1.10, §1.12).
- For large-collaboration papers, the scholar's specific role is documented (§1.13).
- Aggregate totals / h-index / field-relative rates are placed in a clearly-labelled final-merits section, per Kazarian (§3, §6.1.7).

Disclaimer

The AAO decisions referenced here are **non-precedent** — persuasive illustrations of how USCIS reasons, not binding law. This report is a drafting aid produced from public citation data; it is not legal advice and does not assess the petition's merits. All analysis must be reviewed by qualified immigration counsel.

G. Citation Evidence Index

Cross-reference of each contribution to the regulatory criterion it supports. Counsel should map these to the petition's exhibit numbers.

Contribution	Core paper	Indep. cites	Supports
Contribution 1	Case studies for self-organization in computer science	0	Dhanasar – Prong 2 (well-positioned)
Contribution 2	The impact of semantic web technologies on job recruitment processes	2	Dhanasar – Prong 2 (well-positioned)
Contribution 3	Coordinating multiagent applications on the WWW: A reference architecture	1	Dhanasar – Prong 2 (well-positioned)